

Remarks

Reconsideration of the application is respectfully requested. No new matter has been added to the claims.

5 Claims 1, 2, 4-6 were rejected under Section 102 as being anticipated by or as obvious over Elmore. This rejection is respectfully traversed.

To summarize the present invention, it is an effective method for treating chips where the chips are first heated by steam in a steam treatment inside a steam treatment  
10 vessel. The chips are subjected to an increased acidification while the chips are being steamed in the steam treatment vessel. The acidic fluid is added in an amount so that at least a five-fold increase an ionic concentration of hydrogen ions occurs at the end of the steam treatment. The final pH  
15 of the chips is reduced by at least 0.5 units. In other words, this acidification takes place without producing large volumes of acidic waste liquids, and the chips per se are made strongly acidic while in the steam treatment vessel.

Claim 1 has been amended to more clearly claim that  
20 the acidic fluid is directly added to the chips while the chips are being steamed in the steam treatment vessel and in an amount that gives the chips at least a five-fold increase in an ionic concentration at an end of the steam treatment.

It is submitted that none of the cited references  
25 teaches or suggests these unique steps.

Elmore merely shows a method for producing pulp in which the chips are steamed in a steaming vessel 13. As shown

in Fig. 1, no acidic fluid is added to the steaming vessel 13. Elmore adds the acidic fluid in line 24, which is located downstream of the steaming vessel 13, and during slurrying of the chips in the chute 14.

5           It is submitted that Elmore completely fails to teach or suggest directly adding any acidic fluid to the chips while the chips are being steamed in the steaming vessel 13, as required by the amended claim 1. Elmore both fails to teach the steps of directly adding the acidic fluid to the  
10 chips in the steam treatment vessel 13 and adding the acidic fluid while the chips are being steamed in the steam treatment vessel.

          Applicant respectfully disagrees that the selection of order of mixing steam first and acid second or adding steam  
15 and acid simultaneously is prima facie obvious absent of evidence of unexpected results MPEP 2144.04 (IV)( C ) (page 3, lines 6-8). Firstly, the reference to MPEP 2144.04 is inappropriate because the court held that it was prima facie obvious to reverse the order of first coating a base sheet  
20 with a metallic film and then impregnate with a thermosetting material. In the present case, it is not a matter of simply reversing the order of two steps. In Elmore, no acidic fluid is added directly into the steam treatment vessel 13. In other words, Elmore is completely missing the required step.  
25 The acid in line 24 may via a convoluted way end up in the chute 14 but absolutely no acidic fluid is added directly into

the steam vessel 13, as clearly shown in Fig. 1. There are many vessel and conduits between line 24 and the chute 14. Additionally, the acidic fluid and the steam are added together into the same steam treatment vessel which is  
5 different from simply reversing the order of treatment steps.

According to col. 4, lines 43-59, Elmore explains that the mild acid keeps the high pressure feeder 15 free of most contaminants and the long flow path of the acid in contact with the chips to the top of the vessel 22 effects  
10 acid pre-hydrolysis of the chips. Although some acidic fluid may escape from the high pressure line 19 of the feeder 15 into the low pressure line 16, this amount is not sufficient to give the chips a five-fold increase in ionic concentration of hydrogen ions. Even if the amount of acidic fluid is  
15 sufficient, such acidic fluid is directed to the chip chute 14 which is downstream of the steam vessel 13. There is no acidic fluid added directly to the chips disposed in the steam vessel while the chips are being steamed in the steam treatment vessel as required by the amended claim 1.

20 It is submitted that the Examiner is conducting a hindsight analysis which is not proper. There is nothing in Elmore that teaches or suggests the step of directly adding an acidic fluid to the chips disposed in the steam treatment vessel while the chips are being steamed in the steam  
25 treatment vessel.

It has long been held that for a modification to be

obvious, Elmore must explicitly teach or suggest the required step to motivate the artisan to make the required modifications. In re Fine 5 USPQ.2d (Fed. Cir. 1988), the court ruled (on page 1944) that there must be a motivation for the required modification to be obvious. In Winner International Royalty Corp. v. Wing 48 USPQ.2d 1139, the court ruled (on page 1144) that there must have been some explicit teaching or suggestion in the art to motivate one of ordinary skill in the art to make the required modifications.

10           Applicants submit that Elmore completely lacks the required explicit teaching or suggestion to motivate the artisan to make the required modifications to Elmore's invention. In other words, it would not be obvious for an artisan to learn about the step of directly adding the acidic  
15   fluid to the chips disposed in the steam treatment vessel while the chips are being steamed in the steam treatment vessel (in an amount that gives the chips at least a five-fold increase in ionic concentration of hydrogen ions at an end of the steam treatment). It is submitted that Elmore completely  
20   fails to teach or suggest these steps.

          Applicant fails to see why a person of ordinary skill in the art would look to Elmore to learn about directly adding the acidic fluid to the chips in the steam vessel while the chips are being steamed in the steam vessel to five-fold  
25   increase the ionic concentration of the hydrogen ions when Elmore completely fails to teach these steps. Elmore merely

teaches the addition of acid in the slurring phase of the chips and drenching the chips in an acidic liquid solution. This "mild acid" keeps the feeder 15 free from contaminants (col. 4, lines 54-55) and there is no teaching of a five-fold  
5 increase of ionic concentration of hydrogen ions in the steam treatment vessel.

It is thus submitted that the required modifications are not obvious and that Elmore would require extensive modifications that are not taught or suggested to meet the  
10 limitations of the amended claim 1.

Claims 2, 4-6 are submitted to be allowable because they depend upon the allowable base claim 1 and because each claim includes limitations that are not taught or suggested in the cited references.

15 Claim 3 was rejected under Section 103 as being obvious over by Elmore in view of Chemical Pulping by Gullichsen. This rejection is respectfully traversed.

Claim 3 is submitted to be allowable because it depends upon the allowable base claim 1 and because the claim  
20 includes limitations that are not taught or suggested in the cited references.

Claim 7 was rejected under Section 103 as being obvious over by Elmore in view of Snekenes (US Patent No. 6,203,662). This rejection is respectfully traversed.

25 Claim 7 is submitted to be allowable because it depends upon the allowable base claim 1 and because the claim

includes limitations that are not taught or suggested in the cited references.

5 Claim 8 was rejected under Section 103 as being obvious over by Elmore. This rejection is respectfully traversed.

Claim 8 is submitted to be allowable because it depends upon the allowable base claim 1 and because the claim includes limitations that are not taught or suggested in the cited references.

The application is now submitted to be in condition  
for allowance, and such action is respectfully requested.

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Respectfully submitted,

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